
Co-Predatory Rule: International Cooperation with Respect to Cryptocurrency Taxation in Russia and Belarus

This article presents an example of how globalization and digitization force states to rely on international organization. Examining tax policy with respect to cryptocurrency—an innovative, global technology—the implication is that a state levying taxes on cryptocurrency must turn to international monitoring and enforcement regimes to support effective taxation. Based on Margaret Levi’s theory of predatory rule, I submit a theory of “co-predation” to explain international cooperation with respect to taxation of novel, cross-border technologies such as cryptocurrency. The Automatic Exchange of Information (AEOI), an anti-tax evasion framework promulgated by the OECD, serves as an example of international cooperation. A comparison of cryptocurrency taxation in Russia and Belarus finds that, where effective tax policy is at stake, states are enjoined to commit to international cooperation through AEOI. The article concludes by considering implications for legitimacy, quasi-voluntary compliance, and strategic tax policy.

Jim Mignano
Portland State University

Introduction

We live in a global era. Money and communications traverse the planet at the stroke of a button. Travelers reach remote corners of the world in fractions of the time and effort of mere decades ago. Consumers have goods from nearly anywhere delivered to their doorsteps. Businesses search for markets and labor across borders, while migrants bring once distant cultures into close proximity. Nonetheless, whereas society across the world may be more connected than ever before, our understanding of the state in such an era is fraught with contention. Scholars debate the extent to which globalization changes relationships between

states, intergovernmental organizations, and global civil society. Some observers argue that states may be growing closer in contact, but the state itself is adapting and developing new ways of exerting power. Others argue that the consequences of globalization necessitate forms of governance and coordination beyond the capacity of the state. This article presents evidence of the latter.

In this article, I highlight how technological innovation influences relationships among states. The consequences of globalization and technological innovation go hand in hand. If globalization increases the proximity of states to one another, technological innovation—specifically digitization—changes the flow of information among states and between the state and society. Precisely, then, what are the implications of globalization and digitization for the state? I argue that globalization and digitization force the state to rely on international organization. The emergence of cryptocurrency exemplifies this dynamic. Cryptocurrencies are digital payment systems that use cryptography to operate securely without a third-party intermediary. The first cryptocurrency, Bitcoin, was released in 2009 and has inspired the development of thousands of others. As of December 2018, there were at least 35 million cryptocurrency users worldwide.¹

By altering financial channels and obscuring information flows, cryptocurrency disrupts conventional taxation mechanisms, compelling states to turn to international regimes for support. Specifically, individuals and nonstate actors may use foreign cryptocurrency holdings to evade taxation. In response, states turn to international regimes such as the “Automatic Exchange of Information” to share information with one another and combat tax evasion. Otherwise, states must resort to domestic coercion or ideological manipulation to maintain revenue objectives. To explain why, I develop and test a theory of “co-predation,” extending Margaret Levi’s theory of predatory rule to the international arena. “Co-Predatory Rule” explains when states cooperate to maximize revenues, as globalization and digitization threaten the effectiveness of traditional taxation mechanisms. The implication is significant: when technological innovations such as cryptocurrency subvert the state’s capacity to raise revenue, the state must take dramatic measures to adapt or risk becoming outmoded in the 21st century.

Literature Review: Globalization and Taxation

Globalization is a contested concept in the literature. Beginning with a definition of globalization, Mauro Guillen (2001) summarizes major fault lines in

¹ Michel Rauchs, Apolline Blandin, Kristina Klein, Gina Pieters, Martino Recanatini, and Bryan Zhang, *2nd Global Cryptoasset Benchmarking Study*. (Cambridge, UK: Cambridge Centre for Alternative Finance, December 12, 2018), 10, <https://doi.org/10.2139/ssrn.3306125>

debate. If globalization is “a process leading to greater interdependence and mutual awareness (reflexivity) among economic, political, and social units in the world, and among actors in general,” (236) paramount is the question of whether or not globalization is “really happening.” Those who argue in the affirmative point largely to “increasing cross-border flows of goods, services, money, people, information, and culture” (236). Skeptics argue that globalization is overstated and nothing new. Some observe that international trade, for example, is concentrated in a handful of countries and remains but a fraction of total national economic activity. If one grants that globalization is happening, a series of questions unfolds: do state policies converge? Does globalization undermine states’ authority? Is there a substantive difference between globality and modernity? Is a global culture emerging? Assuming that yes, globalization is really happening, my analytical point of departure is the nexus between globality and modernity, exemplified by cryptocurrency. Cryptocurrency is a fitting example because it operates both globally and digitally. As such, it presents an illuminating case through which to probe these questions.

Virginie Guiradon and Gallya Lahav (2000) explore the effect of international regimes on state decision making and thus speak directly to the question of whether globalization threatens national sovereignty. Guiradon and Lahav examine the case of migration control in Germany, France, and the Netherlands, evaluating how international legal norms impact state behavior and how states respond in turn. Specifically, international human rights norms promoting family unity and condemning inhumane treatment have been at odds with state deportation policy. Guiradon and Lahav (164) find that states adapt to such international constraints by “[devolving] decision making in monitoring and execution upward to intergovernmental fora, downward to elected local authorities, and outward to private actors.” Although it took decades in each of the three national cases, significant pressure on states unfolded through “international cooptation” (171-175). Attempting to constrain national migration control, national judiciaries—supported by domestic interest groups—referred to international human rights standards promulgated by the European Court of Human Rights. In response, states circumvented such pressures by shifting the locus of migration control. While their finding implies a shift of national sovereignty, Guiradon and Lahav (165) offer a more sophisticated interpretation: this form of devolution is “sharing competence,” ceding some autonomy “to meet national policy goals, regaining sovereignty in another sense: capabilities to rule.” This analysis considers the extent to which states behave with respect to cryptocurrency as predicted by Guiradon’s and Lahav’s findings.

Turning from the literature on globalization to the literature on taxation, I consider Margaret Levi's (1988) *Of Rule and Revenue*. Levi's theory of "predatory rule" illuminates a central goal to which states are oriented, as well as a set of constraints that state elites face in pursuit of that goal. For, as Levi (10) asserts, "Rulers maximize revenue to the state, but not as they please." The premise is that state elites act rationally in pursuit of their goals, which necessitates the objective to accumulate resources in the form of tax revenue. In short, to spend, states must raise money. In Levi's (3) words, "rulers are predatory in that they try to extract as much revenue as they can from the population." Based on this imperative, Levi devises two general forms of relationship between ruler and ruled: the state as a collective good provider and the state as a "protection racket." ("Protection racket" is Levi's (11) colorful way of describing state tax policy that involves no provision of goods or services other than withholding the heavy hand of the state in exchange for compliance.) History is replete with states taking both forms, Levi finds, and often involves some combination of the two.

The forms a state takes in relation to its subjects, and ultimately its ability to maximize state revenue, rests on six constraints its rulers face. Levi divides the constraints into two categories: structural constraints and behavioral constraints.² Three structural constraints situate rulers in decision-making environments that shape rulers' incentives and the information at their disposal. First, "productive forces and economic structure" reflect the state of a nation's economy, including the relations and influence of land, labor, and capital interests. Productive forces also influence the array of material goods the state is expected to supply its subjects. Second, "international context" recognizes that states do not operate in a vacuum but are subject to external pressures and inducements, primarily through competition with other states. In this respect, elements such as trade, international investment, and regulatory arbitrage may serve to extend or constrict a state's total revenue base. Third, "form of government" dictates the range of choices available to state leaders. Government form places constraints on state leaders given their principal-agent roles, the character of political rivalry, and the array of compliance measures at their disposal.

The second, behavioral, set of constraints encompasses state leaders' relative bargaining power, discount rates, and transaction costs. Relative bargaining power is in part a function of the first three structural constraints. That is, economic structure, international dynamics, and government form influence the position of state leaders vis-à-vis other influential actors and constituents. Nonetheless, Levi (18-20) describes how state leaders can enhance their relative bargaining power by

² This review does not fully elaborate the details of each constraint—for there are many—but focuses on the factors most at play in state behavior with respect to globalization and digitization.

accumulating coercive resources (through law, police, and courts), economic resources (through ownership and control of the means of production), and political resources (through maintaining discipline in their ranks and immobilizing opposition). Levi's (23) transaction costs "are the positive costs of bargaining a policy and of implementing a policy once it has been bargained." With respect to revenue maximization, transaction costs are especially significant and take the forms of "measuring revenue sources, monitoring compliance, using agents and other middlemen, punishing the noncompliant, and creating quasi-voluntary compliance" (23).

Levi's concept of quasi-voluntary compliance is particularly illuminating. A mechanism for lowering transaction costs, Levi distinguishes quasi-voluntary compliance from costlier mechanisms for maximizing revenue to the state, such as coercion (with high monitoring and enforcement costs) and normative congruence (which depends on the state's ability to capitalize on constituents' extra-rational motives such as ideology). Quasi-voluntary compliance is "*voluntary* because taxpayers choose to pay" and is "*quasi-voluntary* because the noncompliant are subject to coercion—if they are caught" (52). Quasi-voluntary compliance rests on taxpayers' expectations that "rulers will keep their bargains" and "the other constituents will keep theirs" (53). In other words, as rational actors, taxpayers expect material benefits from the state in return for paying taxes. Material benefits may be public (such as peace, safety, and security; economic stability and development; and natural resource management), private (such as patronage or sale of office), or some combination thereof. Taxpayers also expect fairness: that their compatriots will pay their fair share and those who do not will be forced to pay or be punished.

State leaders may reinforce taxpayers' expectations of material benefit through what Levi (61) calls "precommitment" and "conditional cooperation." Precommitment may take the form of leaders publicizing binding budgets, investing in public goods up-front, and in democratic regimes, subjecting themselves to regular electoral contests. Conditional cooperation holds leaders accountable to each other and finds a natural home in regular, public legislative deliberation. State leaders may also reinforce taxpayers' confidence in their compatriots through "selective incentives," "conditional cooperation," and "coordination and loyalty" (64-67). Selective incentives include tax breaks, subsidies, or protections for key taxpayers who may otherwise avoid taxation. As a form of conditional cooperation, the state may devolve monitoring and enforcement functions to lower administrative units or even nonstate actors. Finally, the state may coordinate taxpayers and encourage loyalty by informing its constituents about

high compliance rates, publicly punishing noncompliance, and promoting the goods and services it provides in exchange for tax compliance.

It is worth noting two nuances of quasi-voluntary compliance: the use of focusing events and its relationship to legitimacy cultivation. First, the provision of benefits associated with state leaders “keeping their bargains” need not be considered a pure constraint on rulers. Levi (57) observes that rulers throughout history have capitalized on—or even manufactured—focusing events such as war, economic crisis, and natural disaster to shape the benefits the state provides to their own preferences (perhaps at odds with those of the taxpayers). Second, Levi (68) sees quasi-voluntary compliance as a way of conceptualizing legitimacy, defined as “generalized consent to rules of conformity enforced by rulers on the polity.” The significance of Levi’s conceptualization cannot be overstated, because as Levi demonstrates, rulers may cultivate legitimacy through the mechanisms used to manufacture quasi-voluntary compliance.

The Theory of Co-Predation

The theory I submit is built in part on Guiradon’s and Lahav’s contributions to our understanding of the state and globalization. Guiradon’s and Lahav’s framework of international constraints and state devolutionary response is useful in that cryptocurrency poses challenges to the state for which it is not equipped to confront alone. With respect to cryptocurrency, however, Guiradon’s and Lahav’s analysis underappreciates the extent to which pressures such as digitization fundamentally threaten states’ “capabilities to rule.” To address this shortcoming, I reformulate Levi’s theory of predatory rule to accommodate the sweeping change digitization has wrought since *Of Rule and Revenue* was penned. The theory of “co-predation” extends Levi’s framework to accommodate cryptocurrency’s effects on information flows and inherently transnational nature. It may also shed light on how states manage the economic and political implications of digitization more broadly.

“Co-Predatory Rule” explains when states cooperate to maximize revenues, as globalization and digitization threaten the effectiveness of traditional taxation mechanisms. In this analysis, cryptocurrency alters the structural and behavioral constraints of Levi’s theory of predatory rule such that international regimes—collections of international laws, norms, and organizations specific to a particular set of international affairs—become necessary to generate quasi-voluntary compliance. States can no longer “go it alone” with respect to maximizing revenue, at least if they choose not to rely on coercion or ideology. They must conscript other states as co-predators to uphold monitoring and enforcement mechanisms involved in quasi-voluntary compliance.

Three characteristics of cryptocurrency complicate the state's ability to maximize revenue: globality, pseudonymity, and ideology. Cryptocurrency's globality and pseudonymity are problematic for taxation because they inhibit information flow to the state, complicating measurement, monitoring, and enforcement. Ideologies associated with cryptocurrency, such as "crypto-anarchism,"³ are problematic for quasi-voluntary compliance because they represent wholesale dissent on the part of constituents.

Cryptocurrencies are global by design. Anyone with Internet access may use cryptocurrency to transact with any other user across the globe. As anyone who has sent money from one country to another can attest, cross-border payments are not typically seamless and usually bear substantial transaction costs. Cryptocurrencies are able to skirt barriers and lower transaction costs by operating "peer-to-peer," that is, without involving third-party financial intermediaries. A significant corollary is that, because users can pseudonymously transact with cryptocurrency, they can use it to subvert national capital controls and thwart financial sanctions. Cryptocurrency is thus a striking example of digitization—converting analog information into digital information so computers can process and transmit it—employing modern cryptography to enable its covert use.

Consequently, the theory of co-predation addresses cryptocurrency's globality and digitality in understanding states' constraints with respect to taxation. The fact that cryptocurrency users a) may be earning income in another jurisdiction and b) may not be known to the state constitutes a form of information failure which complicates the state's ability to tax such users. Following Levi's model, the state may resort to coercion, ideological manipulation, or quasi-voluntary compliance. Coercion is relatively straightforward but bears significant monitoring and enforcement costs because it effectively relies on outlawing cryptocurrency. Such heavy-handedness also potentially diminishes the state's legitimacy in the eyes of those attracted specifically to cryptocurrency and technology or more generally, liberal human rights norms. Ideological manipulation shares similar risks to those of coercion, but targets a relatively small proportion of taxpayers who are extra-rationally motivated. That is, such users would be expected to pay taxes, not out of self-interest, but out of some normative kinship with the state and its aims.⁴ For a state to create quasi-voluntary compliance with respect to cryptocurrency taxation, it must delegate a significant share of its monitoring and enforcement activities to

³ See Annex: Crypto-Anarchism.

⁴ Further complicating the state's incentives to manipulate ideology with respect to cryptocurrency is attracting attention to the ideological basis of cryptocurrency itself, which is wholly at odds with the modern nation-state. See Annex: Crypto-Anarchism.

nonstate actors and other states. In the cryptocurrency environment, nonstate actors such as cryptocurrency “wallet” services and exchanges (akin to banks and investment brokerages) are able to collect user identities to peel back the veil of anonymity. In turn, states may collect users’ financial information from cryptocurrency services and exchanges, and transmit relevant tax information to their counterparts. This analysis applies the theory to examine such construction of quasi-voluntary compliance through states’ commitment to the Standard for Automatic Exchange of Financial Account Information in Tax Matters (or “Automatic Exchange of Information,” AEOI).

Alternative Explanations of Co-Predation

Before applying the theory, it is worth exploring several alternative explanations of the impact of digitization on the state. The first takes ontological issue with the dynamic of co-predation, conceiving international regimes as mere epiphenomena of the state. In this line of reasoning, any form of co-predation does not mean that global or digital pressures are outmoding the state; on the contrary, the ability of the state to adapt by enjoining reciprocal relationships with other states is a testament to the state’s persistent ability to pursue its own interest through multiple means. To the extent that we observe international regimes appear to evolve on their own, particularly when doing so may be at odds with state interests, this argument falls short.

A second argument depends on cryptocurrency’s future. For some, cryptocurrency is a mere fad, momentarily drawing attention due to speculative frenzy: it is prone to collapse and certainly does not threaten the state. To be sure, the technology is young, and its staying power remains to be shown, but states have begun to take note. Bitcoin is perhaps the most widely recognized cryptocurrency and offers a glimpse of the magnitude of cryptocurrency on world markets. While Bitcoin has captured the popular imagination and reaches a market capitalization of approximately \$180 billion, there are over 5,000 other cryptocurrencies traded today.⁵

Finally, there is a compelling argument that the AEOI is an imprecise analytical measure. Cryptocurrency taxation is a targeted activity, whereas the AEOI applies broadly to financial instruments. Indeed, the bulk of tax information transmitted through AEOI is likely unrelated to cryptocurrency activities. Using the

⁵ “Top 100 Cryptocurrencies by Market Capitalization,” CoinMarketCap, April 26, 2020, <https://coinmarketcap.com/>. By comparison, if Bitcoin traded as a publicly listed corporation, it would be the 55th largest in the world by market capitalization, on par with Paypal. However, Bitcoin prices are highly volatile, often rising or falling by double digit percentages in a single day.

AEOI in this respect is a blunt instrument, but until we have better measures of cryptocurrency activities, it may help move analysis further along. For the time being, applying the theory of co-predation to cryptocurrencies and the AEOI provides insight into conditions that compel states to cooperate and into specific reasons why states may be enjoined to take cryptocurrency seriously.

Crypto-Friendly States and Automatic Exchange of Information

In 2013, the G20 requested that the Organization for Economic Cooperation and Development (OECD) develop and implement a global standard for combating tax evasion through information sharing. The OECD followed suit by designing the AEOI and began implementing it in 2017. Xavier Oberson (2012, 7) describes the AEOI as an international framework of reciprocal intergovernmental agreements to systematically and regularly collect and transmit “taxpayer information by the source country to the residence country concerning various categories of income.” In effect, the AEOI distributes the burden of monitoring and enforcements among participating countries, through OECD coordination. As of February 2020, of the 170 United Nations member states wherein cryptocurrency is legal,⁶ 79 have committed to the AEOI and 91 have not (see Table 1).

⁶ Global Legal Research Center, “Regulation of Cryptocurrency Around the World,” The Law Library of Congress, June 2018, <https://www.loc.gov/law/help/cryptocurrency/world-survey.php>.

Table 1. AEOI Commitment of Countries where Cryptocurrency is Legal

AEOI (Yes)	Albania	Dominica	Maldives	Samoa
	Andorra	Ecuador	Malta	San Marino
	Antigua and Barbuda	Estonia	Marshall Islands	Seychelles
	Argentina	Finland	Mauritius	Singapore
	Australia	France	Mexico	Slovakia
	Austria	Germany	Monaco	Slovenia
	Azerbaijan	Ghana	Nauru	South Africa
	Bahamas	Greece	Netherlands	South Korea
	Barbados	Grenada	New Zealand	Spain
	Belgium	Hungary	Nigeria	Sweden
	Belize	Iceland	Norway	Switzerland
	Brazil	India	Panama	Trinidad and Tobago
	Brunei Darussalam	Ireland	Peru	Turkey
	Bulgaria	Israel	Poland	United Kingdom
	Canada	Italy	Portugal	United States of America*
	Chile	Japan	Romania	Uruguay
	Costa Rica	Kazakhstan	Russian Federation	Vanuatu
	Croatia	Latvia	Saint Kitts and Nevis	
	Cyprus	Lebanon	Saint Lucia	
	Czech Republic	Liechtenstein	Saint Vincent and the Grenadines	
	Denmark	Luxembourg		
		Malaysia		
AEOI (No)	Afghanistan	El Salvador	Liberia	Sierra Leone
	Angola	Equatorial Guinea	Libya	Solomon Islands
	Armenia	Eritrea	Madagascar	Somalia
	Belarus	Eswatini	Malawi	South Sudan
	Benin	Ethiopia	Mali	Sri Lanka
	Bhutan	Federated States of Micronesia	Mauritania	Sudan
	Bosnia and Herzegovina	Fiji	Moldova	Suriname
	Botswana	Gabon	Mongolia	Syria
	Burkina Faso	Gambia	Montenegro	Tajikistan
	Burundi	Georgia	Myanmar	Tanzania
	Cape Verde	Guatemala	Namibia	Timor-Leste
	Cambodia	Guinea	Nicaragua	Togo
	Cameroon	Guinea-Bissau	Niger	Tonga
	Central African Republic	Guyana	North Korea	Tunisia
	Chad	Haiti	North Macedonia	Turkmenistan
	Comoros	Honduras	Palau	Tuvalu
	Congo	Ivory Coast	Papua New Guinea	Uganda
	Cuba	Jamaica	Paraguay	Ukraine
	Democratic Republic of the Congo	Jordan	Philippines	Thailand
	Djibouti	Kenya	Rwanda	Ukraine
		Kiribati	São Tomé and Príncipe	Uzbekistan
		Kyrgyzstan	Senegal	Yemen
		Laos	Serbia	Zambia
				Zimbabwe

* The United States has not formally committed to the AEOI but participates in practice through its Foreign Account Tax Compliance Act and set of related intergovernmental agreements.

The table discloses little similarity within the two groupings: levels of economic development, government form, membership in international organizations, and demographics vary widely. Perhaps the most common characteristic in one group but not the other is the degree of financialization, as one may expect given the nature of the AEOI. Many countries that have committed to the AEOI are also home to major financial centers, unlike most of those who have not. Still, according to this logic countries such as Azerbaijan, Bulgaria, or Croatia are unlikely commitments.

Recall the central claim of this article, that globalization and digitization force the state to rely on international regimes. In the case of cryptocurrency taxation, we would expect to see otherwise similar states make different commitments with respect to the AEOI, given differing cryptocurrency tax policy. Specifically, a state pursuing effective cryptocurrency taxation is more likely to commit to the AEOI than a state that does not pursue effective cryptocurrency taxation. To test this hypothesis, the rest of this analysis focuses on one pair of like countries: Russia and Belarus. While Russia and Belarus differ substantially in global influence (population, GDP, and geopolitics), their domestic political, economic, and social conditions are far more similar than they are different. Freedom House identifies both regimes as authoritarian, with low aggregate freedom scores (Russia at 20, Belarus at 19).⁷ As of 2018, GDP per capita (at Purchasing Power Parity) is \$24,791 in Russia and \$17,742 in Belarus.⁸ Roughly equal shares of each country's labor force work in agriculture (9-10%), industry (23-28%), and services (63-67%). Approximately 76.4% of the Russian population and 71.1% of the Belarusian population use the Internet.⁹ In effect, the countries' similarities allow us to hold four of Levi's six constraints constant while examining the effects of international context and transaction costs on the differing policy outcomes. Thus, the analysis assumes two of the structural constraints (productive forces/economic structure and form of government) and two of the behavioral constraints (relative bargaining power and discount rates) remain constant.

⁷ "Freedom in the World 2020: Countries and Territories," Freedom House, 2020, <https://freedomhouse.org/countries/freedom-world/scores>.

⁸ "GDP per capita, PPP (constant 2011 international \$)," World Bank, <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD> (accessed February 7, 2020).

⁹ "Country Comparisons: Russia vs. Belarus," Index Mundi, <https://www.indexmundi.com/factbook/compare/russia.belarus> (accessed February 7, 2020).

Russia and the Kremlin Cryptocracy

Russian state behavior in the international context cannot be isolated from its past. A once powerful, regionally competitive empire and subsequently more powerful global superpower, the intimidating shadow of Russia's past looms large over its tumultuous present. Moscow's influence on the world stage is now overshadowed by its Cold War victors to the west and a rising China to the east. Once supplying Warsaw Pact partners with a variety of commercial and industrial goods, it now relies primarily on oil and gas exports for trade revenue. Contemporary stories of Russian election interference, state-supported spyware, and cyberwarfare employed in Georgia and Ukraine suggest that Russia has unabashedly turned to technology to exert international influence.¹⁰

With respect to cryptocurrency, the Russian state is moving tentatively, having recently legalized cryptocurrency and wading into designs for its own state-backed "cryptoruble."¹¹ As declining oil revenues and sanctions take their toll on the ruble, cryptocurrency is attracting interest from leaders and citizens alike. That said, Russia's cryptocurrency industry is nascent compared with international frontrunners such as China and the United States. If Russians choose to trade in cryptocurrency, they are likely to look overseas, which is where the AEOI comes in. The state levies a 13% tax on personal cryptocurrency incomes and 24% on corporate cryptocurrency activities. Short of banning international networking or forcing personal financial disclosures of cryptocurrency holdings—which would carry substantial transaction costs—the Russian government has agreed to international information exchange. In terms of this analysis, Russia has become a co-predatory state.

Belarus and Landlocked Offshoring

With its reputation for a heavy hand in industrial affairs, relative isolation, and stalled economy, landlocked Belarus has emerged on the international scene as an unlikely cryptocurrency haven. Geographic and economic factors have drawn a disproportionately substantial number of cryptocurrency mining operations to the country.¹² Its low temperatures year-round enable miners to pack many rigs into

¹⁰ Michael Connell and Sarah Vogler, "Russia's Approach to Cyber Warfare," *CNA Analysis & Solutions Occasional Papers*, March 2017, https://www.cna.org/cna_files/pdf/DOP-2016-U-014231-1Rev.pdf.

¹¹ Max Seddon, "Putin Considers 'Cryptoruble' as Moscow Seeks to Evade Sanctions," *Financial Times*, January 1, 2018, <https://www.ft.com/content/54d026d8-e4cc-11e7-97e2-916d4fbac0da>.

¹² Cryptocurrency mining is a critical network process, using computing power voluntarily contributed by users ("miners") to validate transactions and secure the cryptocurrency network. The

low-rent warehouses without needing to pay as much to keep their mining rigs cool as in higher temperature countries. In response to foreign investment in the local cryptocurrency economy, and likely to attract further investment, the Belarusian state has embraced the technology.

In December 2017, Belarus announced a set of comprehensive measures to liberalize its economy with respect to cryptocurrency, calling the framework “the first of its kind in global scale.”¹³ Key features of the framework include the creation of an economic development zone dedicated to the technology, unregulated cryptocurrency fundraising, and a legal framework supporting the technology’s use and expansion. As part of this legal framework, Belarusian President Alexander Lukashenko decreed cryptocurrency incomes tax-exempt through 2023.¹⁴ Consequently, because Belarus does not collect taxes on cryptocurrency, it has little incentive to commit to the AEOI, at least with respect to cryptocurrency. It is perhaps unsurprising then, to find that Belarus has not committed to the AEOI. If anything, by doing so, Belarus would face higher transaction costs given the attendant obligation to monitor and report domestic cryptocurrency activities by residents of other countries.

Conclusion

To reiterate, the theory of co-predation predicts that a state pursuing effective cryptocurrency taxation forces it to cooperate with other states and nonstate actors. While Russia presents a relatively straightforward case of co-predation, Belarus appears less concerned with raising tax revenues from cryptocurrencies than fostering the development of cryptocurrency. In either case, the implications for state sovereignty in a digital, global era are evident. To fight tax evasion, Russia has chosen to delegate a portion of monitoring and enforcement activities outside its scope of authority. It depends on foreign cryptocurrency services and exchanges to report holdings of its domestic users, via co-predatory states that are party to the AEOI. By contrast, Belarus has no need to delegate such authority, having chosen to liberalize an innovative sector of its economy. Unlike Russia, it is not engaging in co-predation with respect to cryptocurrency and AEOI.

prospect of winning mining rewards in the form of newly minted cryptocurrency and transaction fees incentivize miners to devote computing power.

¹³ Artem Tolkachev and Denis Aleinikov, “Belarus Enacts Unique Legal Framework for Crypto Economy Stakeholders,” *Deloitte Legal*, December 27, 2017, <https://www2.deloitte.com/content/dam/Deloitte/ru/Documents/tax/lt-in-focus/english/2017/27-12-en.pdf>.

¹⁴ Tatsiana Kulakevich, “Why Would Authoritarian Belarus Liberalize Cryptocurrencies?” *The Monkey Cage*, January 25, 2018, <https://www.washingtonpost.com/news/monkey-cage/wp/2018/01/25/why-would-authoritarian-belarus-liberalize-cryptocurrencies/>.

One objection to this conclusion is that it is premature, because the AEOI is relatively new. That may be the case, but as of yet, there is little indication of its intent to commit to AEOI. Furthermore, Belarus has been party to bilateral automated information exchange with the United States since 2015. Among countries where cryptocurrency is legal, those with such intergovernmental agreements with the United States are far more likely to be parties to the AEOI than not (60 out of 77). This observation suggests that Belarus is indeed contradicting a norm, implying it must have a compelling reason to do so.

It is also important to consider the connection Levi makes between quasi-voluntary compliance and legitimacy. Both Russia and Belarus are authoritarian regimes and thus suffer from reduced legitimacy due to increased reliance on coercion. The Russian case may reflect an attempt to boost much-needed legitimacy by sharing taxation duties internationally while allowing its citizens to partake in the cryptocurrency economy. Where no tax revenues are (currently) at stake, Belarus has no need to create quasi-voluntary compliance. Rather, it appears to be fostering legitimacy through the symbolic construction of a state embracing technological innovation. Since all states seek legitimacy (as well as revenues), further analysis into the dynamics at play in democratic regimes of the digital age is merited.

While this analysis focuses on co-predatory rule as a method of maximizing revenue, the interplay between cryptocurrency and states suggests an additional advantage of co-predation. If states become more concerned by cryptocurrency, tax policy may become instrumental. Cryptocurrency's long-term viability depends on substantial network growth. That is, the value of cryptocurrency to its users depends in large part on how many others use it. Like "sin taxes," which may be designed to reduce certain behaviors such as alcohol and tobacco consumption, an effectively high tax on cryptocurrency may stunt its growth by discouraging its use. Otherwise, the state may lose more than just its predatory monopoly.

References

- CoinMarketCap. 2020. "Top 100 Cryptocurrencies by Market Capitalization." Last modified April 26. <https://coinmarketcap.com/>
- Connell, Michael and Sarah Vogler. 2017. "Russia's Approach to Cyber Warfare." *CNA Analysis & Solutions Occasional Papers*, March. https://www.cna.org/cna_files/pdf/DOP-2016-U-014231-1Rev.pdf
- Freedom House. 2020. "Freedom in the World 2020: Countries and Territories." Accessed April 26, 2020. <https://freedomhouse.org/countries/freedom-world/scores>

- Global Legal Research Center. 2018. "Regulation of Cryptocurrency Around the World." *The Law Library of Congress*, June.
<https://www.loc.gov/law/help/cryptocurrency/world-survey.php>
- Guillen, Mauro. 2001. "Is Globalization Civilizing, Destructive or Feeble? A Critique of Five Key Debates in the Social Science Literature." *Annual Review of Sociology* 27 (1): 235-260.
<https://doi.org/10.1146/annurev.soc.27.1.235>
- Guiradon, Virginie and Gallya Lahav. 2000. "A Reappraisal of the State Sovereignty Debate: The Case of Migration Control." *Comparative Political Studies* 33 (2): 163-195.
<https://doi.org/10.1177/0010414000033002001>
- IndexMundi. "Country Comparisons: Russia vs. Belarus." Accessed February 7, 2020. <https://www.indexmundi.com/factbook/compare/russia.belarus>
- Kulakevich, Tatsiana. 2018. "Why Would Authoritarian Belarus Liberalize Cryptocurrencies?" *The Monkey Cage*, January 25.
<https://www.washingtonpost.com/news/monkey-cage/wp/2018/01/25/why-would-authoritarian-belarus-liberalize-cryptocurrencies>
- Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press.
- Levy, Steven. 1993. "Crypto Rebels." *WIRED*, February 1.
<https://www.wired.com/1993/02/crypto-rebels>
- May, Timothy C. 1992. "The Crypto Anarchist Manifesto." *Activism.net*, November 22. <https://www.activism.net/cypherpunk/crypto-anarchy.html>
- Oberson, Xavier. 2012. "Automatic Exchange of Information: What it Is, How it Works, Benefits, What Remains to Be Done." In *International Exchange of Information in Tax Matters: Towards Global Transparency*, ed. Xavier Oberson, 184-203. Northampton, MA: Edward Elgar Publishing, Inc.
<https://doi.org/10.4337/9781784714727.00016>
- Rauchs, Michel, Apolline Blandin, Kristina Klein, Gina Pieters, Martino Recanatini, and Bryan Zhang. 2018. *2nd Global Cryptoasset Benchmarking Study*. Cambridge, UK: Cambridge Centre for Alternative Finance, December 12. <https://doi.org/10.2139/ssrn.3306125>
- Seddon, Max. 2018. "Putin Considers 'Cryptorouble' as Moscow Seeks to Evade Sanctions." *Financial Times*, January 1.
<https://www.ft.com/content/54d026d8-e4cc-11e7-97e2-916d4fbac0da>
- Tolkachev, Artem and Denis Aleinikov. 2017. "Belarus Enacts Unique Legal Framework for Crypto Economy Stakeholders." *Deloitte Legal*, December 27. <https://www2.deloitte.com/content/dam/Deloitte/ru/Documents/tax/It-in-focus/english/2017/27-12-en.pdf>

World Bank, International Comparison Program database. “GDP per capita, PPP (constant 2011 international \$).” The World Bank Group. Accessed February 7, 2020.

<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD>

Annex: Crypto-Anarchism

No discussion of cryptocurrency and the state is complete without an introduction to “crypto-anarchism.” In 1992, three computer programmers in San Francisco started an online mailing list to discuss their shared interest in cryptography. The list grew, as hundreds joined over the next couple years and discussions ranged beyond technical aspects of cryptography to politics, philosophy, and everything in between. The community quickly became known as “cypherpunks.” Steven Levy writes, “In the Cypherpunk mind, cryptography is too important to leave to governments or even well-meaning companies.”¹⁵ Many of the cypherpunks’ shared interests coalesced around a unique political identity: self-described libertarian-leaning “crypto-anarchists.” Timothy C. May, one of the original three programmers, described crypto-anarchy in an early email to the list and forecast, “Just as the technology of printing altered and reduced the power of medieval guilds and the social power structure, so too will cryptologic methods fundamentally alter the nature of corporations and of government interference in economic transactions.”¹⁶ May and his contemporaries set the stage for a technological revolution that would pit likeminded developers against government agencies like the National Security Agency and powerful corporations like Equifax. Their goal would be digital emancipation and their weapon would be cryptography, cryptocurrency being one of their earliest pursuits. Many cryptocurrency proponents also claim that by eliminating a central monetary authority, cryptocurrency avoids human fallibility and political pressures to manipulate the money supply. For both ideological and technical reasons, cryptocurrency is not just a financial tool but can also be a distinct form of political dissent.

¹⁵ Steven Levy, “Crypto Rebels,” *WIRED*, February 1, 1993, <https://www.wired.com/1993/02/crypto-rebels>.

¹⁶ Timothy C. May, “The Crypto Anarchist Manifesto,” November 22, 1992, <https://www.activism.net/cypherpunk/crypto-anarchy.html>.